Extended Review of The Liberty Consulting Group Executive Organization Analysis and Results

Prepared for:

Nalcor Energy

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1. SCOPE OF EXECUTIVE ORGANIZATION ANALYSIS REVIEW

This report offers an extended review of The Liberty Consulting Group (Liberty) executive organization analysis and results in Chapter V of their Phase Two Final Report (Final Report).[1] Substantial changes to the Nalcor executive organization is one element of the proposed integration of Newfoundland and Labrador Hydro (NLH) and Power Supply (the focus of Chapter V of the Liberty report). Specifically, Section H is their analysis of the current Nalcor executive organization structure relative to a selected peer group of Canadian Crown electric corporations. The ultimate assertion of Liberty is that the "executive organization of Nalcor is unusually large and complex for such a comparatively small utility operation" and that this justifies the elimination of a significant number of top-level executive positions as part of broader organizational changes.[2]

While it is important to consider the efficiency of Nalcor's organizational structure, there are severe flaws and omissions in Liberty's executive organization analysis of Nalcor relative to the peer group of Crown electric corporations. These limitations should be considered before any decisions are made on the basis of the Liberty analysis. Power Advisory offers both direct critique of this Chapter V Section H of the Final Report and additional context to inform consideration of the current Nalcor executive organization structure.

1.1 Key Findings

Power Advisory finds a number of issues with the Liberty executive organization analysis ranging from specific utility data values and the calculation of the comparison metrics to the overall framing of executive. Some of the key findings of this report include:

- Officers is not a viable comparison if trying to determine the appropriate leadership in an organization and must be clearly defined;
- Liberty lacks a description of its methodology, proper sourcing and a strong analytical basis for its comparison metrics;
- Particularly the "officers" data values can not be consistently replicated by Power Advisory or the overall results validated;
- The analysis does not consider the relative workload, geographic footprint, business diversity, governance and objectives of Nalcor or common organizational design principles in drawing conclusions on its executive organization;
- Broader organizational and business effects should be considered before a substantial number of "executives" are eliminated.

[1] The Liberty Consulting Group "Final Report on Phase Two of Muskrat Falls Project Potential Rate Mitigation Opportunities" September 3, 2019, p. 79-83.

[2] Ib id., p.82

2. CHARACTERIZATION OF EXECUTIVE ORGANIZATION

The driver of Liberty's analysis is the concept of executive organization. The number of executive "officers" is the basis for the utility comparison metrics and the Liberty conclusions.

2.1 Liberty Lacks Transparent Definition of Executive

However, nowhere in the Final Report is executive defined or a methodology for determining who constitutes an executive outlined. This is problematic for the peer group analysis because executives beyond a few common top executives vary widely by organization. Without a consistent understanding of how Liberty has defined "executive" it is difficult to determine that the median and average peer comparisons presented are fair.

The questions around what constitutes an executive are numerous. Title alone is not a reliable bright line. For example, where some organizations use Vice President others may use Director or Senior Manager for the same responsibilities. When there are common titles within an organization it may not be the case that all Directors, or a different common title, represent a part of the executive organization. Titles also do not necessarily reflect equivalent compensation, in fact sometimes titles are offered in lieu of increases in compensation. Comparing executive numbers is further complicated by electric utilities with greater number of affiliates than others. Should companies with more diverse business segments and strategic mandates have all affiliate leaders counted or just those at a certain level? These are just some of the questions left unanswered by Liberty's lack of a transparent definition of executive. Nuances around the determination of the number of executives in an organization are discussed below, particularly in Section 3.1.

2.2 Liberty Uses Executive Inconsistently & Departs from Business Norms

Liberty switches between "executive positions", "officers", "senior management", "top executives" and "top-level executives" while sometimes appropriately meaning different things and other times referring to the same. The Nalcor organization chart presented by Liberty is labeled "Current Nalcor Top-Level Organization Structure" but is broader than what is meant by top-level organization elsewhere in their report.[3] "Officers" is presumably the Liberty proxy for executives as it is used in the comparison tables and carried through the quantitative peer analysis. Yet, officer is not an unambiguous term, or even used when discussing the current Nalcor executive organization.

In the business community it is common to think of an executive as a person that is responsible for the strategic direction and performance of an organization or business unit. Typically, these individuals are direct reports of the President or CEO, who is responsible for the overall strategic

[3] Ib id. Figure V.4 p.80

direction and performance of the organization. In a sense, executives are the leader's lieutenants in the various business units, as well as their leader. Executives are typically selected by the CEO in consultation with a Board of Directors. An officer on the other hand is a person empowered by the Board of Directors to act on behalf of the corporation and to enter into contracts on its behalf. Sometimes the roles are combined, but this is not always the case. For example, a Corporate Secretary is almost always an officer of a corporation but is not usually an executive team member unless the role of corporate secretary is combined with another role, such as Vice-President Legal. As another example, a Director of Procurement is sometimes an officer because their role requires them to enter into contracts on behalf of the corporation, but this is not really an executive role and is more an operational line managerial role. Conflating the ideas of executive and officer like Liberty has done potentially skews the results of its analysis and departs from business organizational norms.

In light of this ambiguity and use of "officer" for executive, officer could have a strict meaning of just those positions with officer in the title. Examples include CEO, Chief Information Officer, Chief Accounting Officer, Chief Human Resources Officer and so on. However, all officers are not per say part of the executive organization and Vice-Presidents and even Directors, roles which are common for the heads of business units and more likely to be executives, would be excluded. This does not appear to have been the methodology of Liberty (as will be discussed in Section 3).

2.3 Liberty Lacks Citation or Description of Source for Officer Values

Liberty is more transparent in where it draws other data for their executive organization analysis. Particularly operating expenses, which are said to be from audited annual reports and exclude costs such as depreciation and amortization, finances, taxes and exploration that impact resource requirements less directly. There are still some flaws with this data, as is discussed in Section 4. Nonetheless, when it comes to the "Officers" data no identification of source is made let alone references provided for the individual values. In effect it is unclear from where Liberty draws the executive numbers for its executive organization analysis, making it impossible to directly validate the analysis.

If the source is also audited annual reports, presumably corresponding to the reporting year for which the other values are drawn, that still is an unclear source. Electric utilities often do not include organizational charts in their annual reports, especially to the level of detail of the one used for Nalcor (Liberty Figure V.4). This is true for the four-utility peer group selected in their analysis. However, there are listings of key executives and compensation to varying degrees in electric utility annual reports. These tend to be "top-level" executives versus the more expansive sense of executives or officers that appears to have been applied to the analysis of Nalcor's current organization. A simple listing of executives does not offer the same relational information as an organization chart. How a utility lists its executives in an annual report is also typically a self-identification that does not conform to a common standard across utilities. These are some of the very issues that Power Advisory observed in its North America utility jurisdictional scan and discusses further in the next section.

3. DETERMINATION OF EXECUTIVES ("OFFICERS") DATA VALUES

Considering Liberty's lack of a clear definition of executive, missing sourcing and inconsistent language, their determination of "officers" is far from transparent. In this section Power Advisory outlines several factors that should be considered when determining the number of executives in an organization and provides indicative executive counts for Nalcor and the peer utilities. The counts are based on simplified assumptions that seek to put Liberty's data values in context. More thorough methods would require a level of effort outside the scope and constraints of our review. By considering the number of "officers" in each of these organizations, this is not to say that the comparison metrics utilized by Liberty are an appropriate framework to establish Nalcor's executive organizational structure (see Section 4 and 5 for more).

3.1 Methodologies for Determining Executives in Organizational Structures

The number of executives is partially a function of the size of a company in terms of employees, products and services, customers, revenues and expenses.[4] These are things that Liberty attempted to normalize for with its crown utility data values and metrics. More fundamentally, the number of executives is properly going to reflect the organizational mandate of the company whether Crown or investor owned. The broader the mandate, and as a result the likely number of business segments and/or affiliates, the more executives. This is supported by the span of control of a single executive needing to be focused enough that is reasonably manageable. At the same time a larger or smaller company should not per se have a proportionally greater or lesser number of executives. There are a certain number of executives required to operate a given business, based on its mandate, size, products and services, geography and legal construction/governance. To the extent that executives are those responsible for the strategic direction and performance of an organization (as we suggest in Section 2.2) there is also a limit on the number of executives that a company would have, and their titles or level of responsibility may be correspondingly different. If executives are to report directly to the President or CEO there are only so many executives it may be efficient to have.

With these nuances in mind there several ways an executive could be distinguished (i.e. the number of "officers" counted in the context of Liberty's analysis). The possible methodologies include by reporting structure, relative weighted compensation, level of senior managerial responsibility, comparison of functional job duties, solely job title or a combination of factors. Most require a level of judgment that should be transparent as well as come with their own limitations. Power Advisory is not aware of a commonly accepted methodology for comparing the number of executives across organizations or has Liberty presented its analysis as such.

[4] However, there are likely to be economies of scale, which would disadvantage a smaller company such as Nalcor.

Below we utilize three high-level methods of assessing the number of officers across the utility executive organizations. The three are as follows:

A. Position Title - is President, Executive Director, Officer or Vice-President including Executive Vice-President or Senior Vice-President.

B. Modified Position Title - the same position titles as above except positions with the title officer that are not top executives are excluded.

C. Reporting Structure/Business Segments - positions with a direct reporting structure to the organization leader which tend to be the primary company business segments.

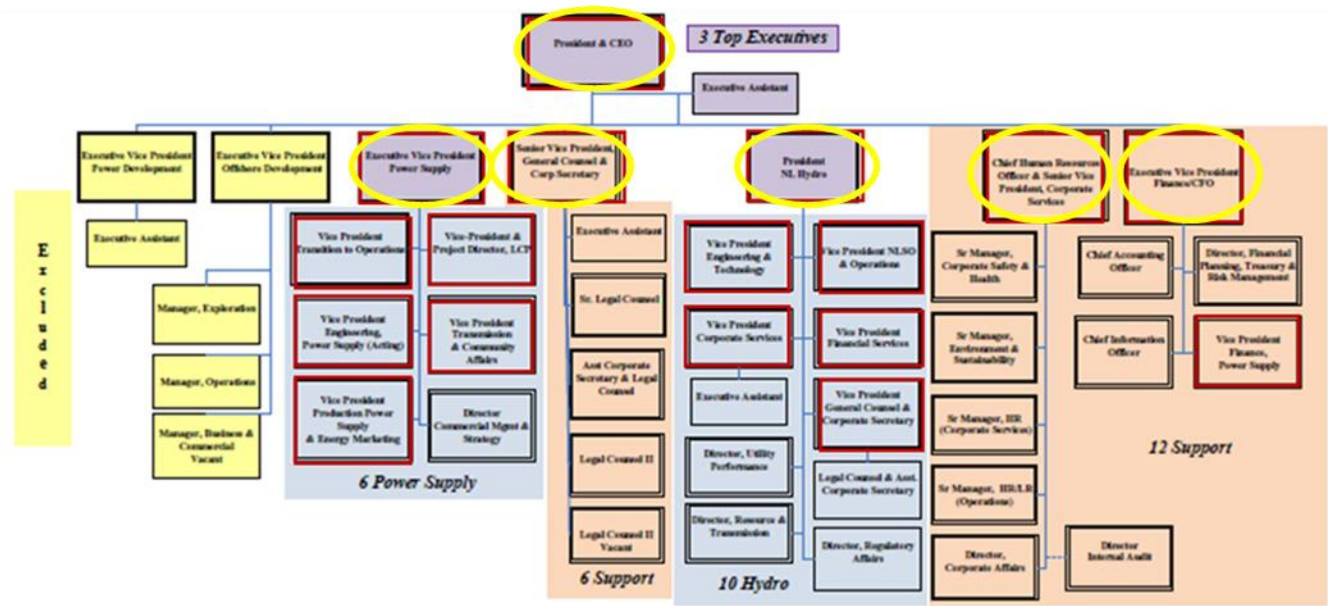
The intent of these assumptions is to understand the basis of Liberty's count of the number of officers. They are reasonable proxies for a consistent definition of executive across organizations. If conducting our own analysis instead of reviewing Liberty's, we would have completed an extended organizational theory literature review then likely included compensation and functional responsibilities in a hybrid methodology of determining the number of executives. This would require primary research at each organization to access the required data and more fully understand their organizational structures. Using only job title, which is the basis for Method A and B, is the less preferable option due to the issues discussed here and in Section 2.

3.2 Nalcor Executive Organization

The determination of what officers make up Nalcor's executive organization is not specified by Liberty. Applying the three methodologies Power Advisory outlines is not able to replicate their finding of 16 officers. The only clear assumption Liberty made is the exclusion of the Power Development and Offshore Development EVPs. This is appropriate given the future of Nalcor with the completion of LCP and separation of oil and gas development under a new Crown corporation.

If strictly going by positions with the title of President, EVP, SVP or VP and the top Officers (i.e. only CEO, CFO and Chief Human Resources Officer), this suggests that there are currently 17 Nalcor officers in addition to the two excluded (Method B). See the dark red boxes in Figure 1 for an illustration of this on Liberty's Nalcor organization chart. If all officers with those titles are included it would bring the total to 19 (i.e. adding the Chief Accounting Officer and Chief Information Officer or Method A). Alternatively, the current Nalcor executive organization by reporting structure and business segment could be seen as just 6 officers (Method C). This alternative most closely aligns with how Nalcor is currently operationally organized from an executive standpoint (see the yellow circles on Figure 1 for the positions included).

Figure 1: Annotated Liberty Nalcor Executive Organization Structure



Nalcor's annual report lists the "officers" for Nalcor, Hydro and all affiliated entities. Different conclusions could be reached depending on which are considered. In the absence of a clearly described methodology, applying the three simplified Power Advisory methods to Liberty's Nalcor executive organization chart is the most holistic review that can be completed.

3.3 Utility Peer Group Executive Values

Power Advisory reviewed the four peer crown corporations selected by Liberty in our jurisdictional scan and offers representative officers data values under the three described methodologies in Table 1. Then we present organizational charts for each company.

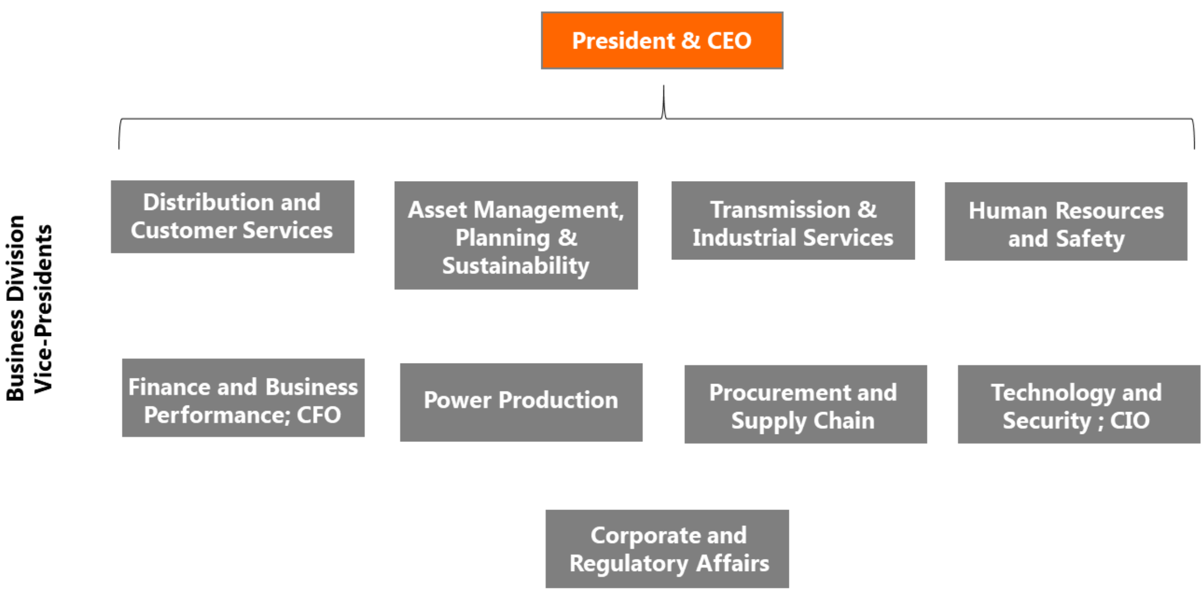
Applying the three methods of determining the number of officers, the Liberty values can not be replicated across the peer companies. In particular, it is not clear how the value of 13 officers for BC Hydro was derived. Based on our review we do not believe that there is a consistent method that can be applied to establish that number of officers in the BC Hydro executive organization.

Comparing the titles used by the respective companies it does appear that Nalcor has more Vice Presidents than the selected comparison group. As discussed, this does not mean that they are all actually executives or that some are not functionally the same as a Director at another utility. It is also divorced from the discussion of compensation (i.e. the relative operational cost). On the basis of reporting structure and business segments (Method C), Nalcor is on par with the peer group in officer numbers.

Table 1: Utility Peer Group 'Officers' Data Values

Company	Liberty Final Report	A. Position Title	B. Modified Position Title	C. Reporting Structure/Segments
SaskPower	10	10	8	6
NB Power	8	10	8	8
BC Hydro	13	17	11	9
Manitoba Hydro	8	7	7	8
Median Officers	*9*	*10*	*8*	*8*
Average Officers	*10*	*11*	*9*	*8*
Nalcor Energy	16	19	17	6

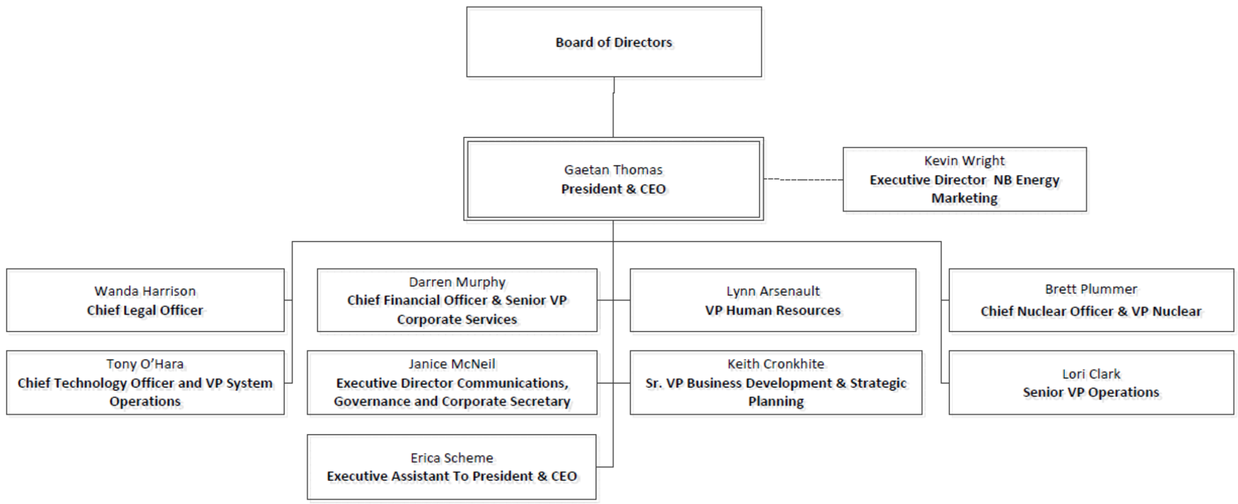
SaskPower



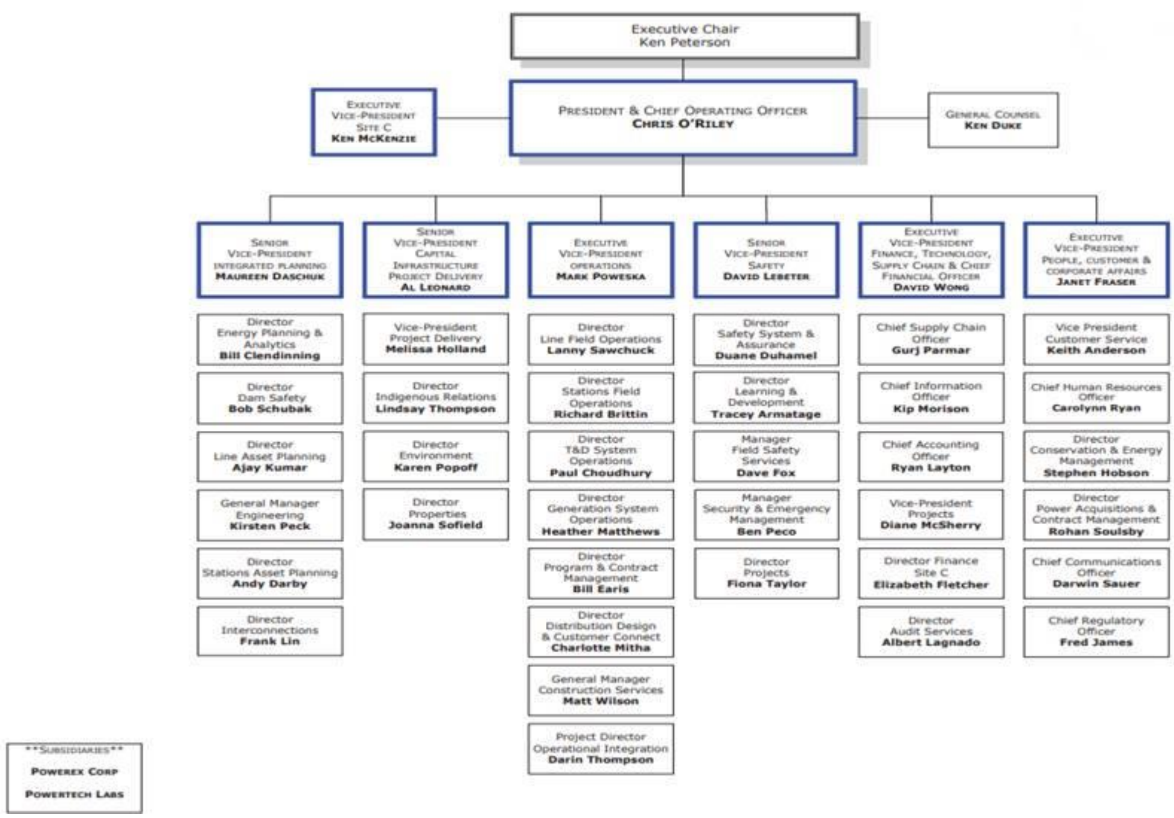
NB Power

NB Power Senior Leadership Team

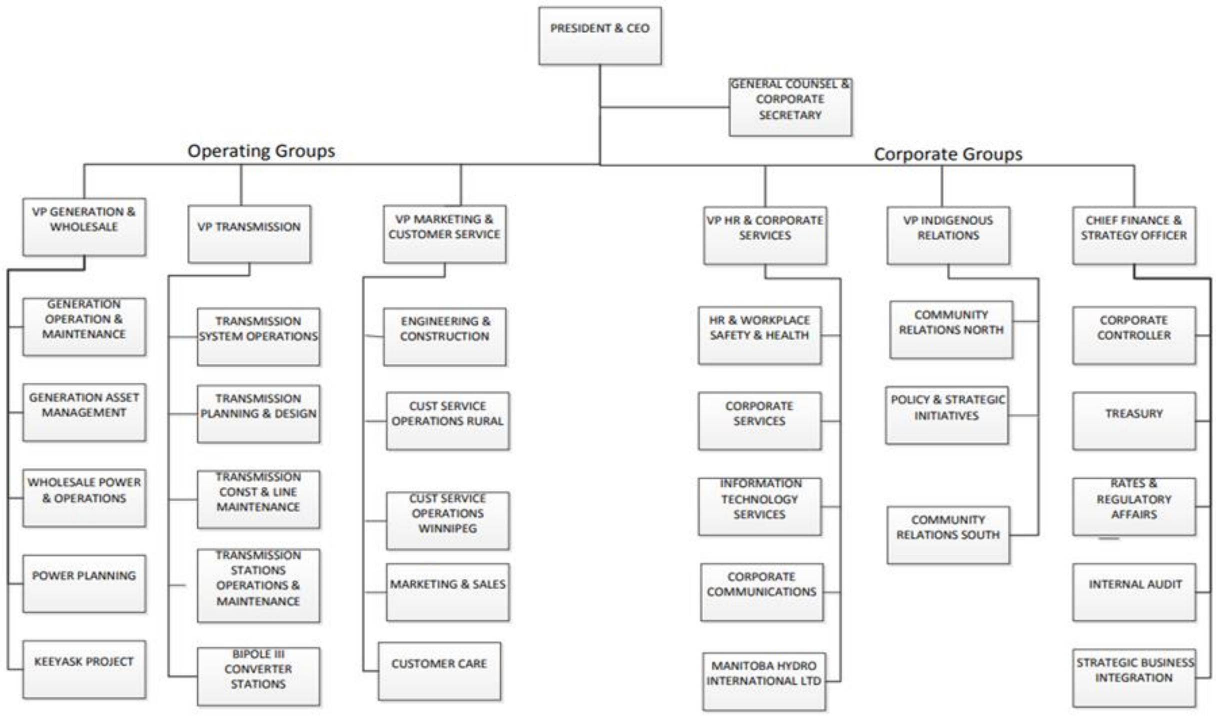
November 2018



BC Hydro



Manitoba Hydro



4. CROWN ELECTRIC CORPORATION DATA VALUES AND METRICS

Liberty selected data values of expenses (millions), sales (GWh), customers, employees and officers to produce comparison metrics of expenses, customers, employees and sales per employee and officer for Nalcor relative to the Canadian Crown electric corporation peer group. This section discusses the Liberty peer group, data value and metric selections as well as the overall analysis.

4.1 Analytical Basis for Executive Organization Comparison

The Liberty analysis of Nalcor and its recommendations on the executive organization of the merged Power Supply and Hydro units is very simplistic. It is a benchmarking exercise without deeper consideration of executive organizational effectiveness or the underlying differences between utilities, even for these relatively similar Crown corporations. Power Advisory has not observed the use of such benchmarking in reorganizations or specifically in regulatory proceedings concerning utility rate structures and mitigation. Liberty also does not attempt to consider operational costs by reviewing the relative compensation of executives at various utilities and within Nalcor even though that would more closely align with the mandate of its Phase Two report for the Board.

While using descriptive statics of average and median and attempting to construct metrics that normalize for differences has value, it also gives the impression that this analysis has a strong analytical basis. We encourage the Board and other stakeholders that may make decisions based on this analysis to ask Liberty to demonstrate the basis for its analysis including any precedent there may be. Furthermore, a peer group of only four companies is not a significant sample or a broad sectoral sampling. Presumably Liberty's rationale is to conform to the model of a "Crown corporations serving at least the vast majority of their province's residents, businesses, and institutions and on a vertically-integrated basis." Yet, Nalcor does not even fit this model and has to be considered along with part of Newfoundland Power as a proxy for distribution operations.

4.2 Validation of Data Values

In Section 3.3 Power Advisory was not able to fully validate the "officers" numbers reported by Liberty. Power Advisory also reviewed the other data values of expenses, sales, customers and employees. No indication is made of what year of comparison was used or how the data was gathered as a whole.

Generally, the 2018 annual reports for the respective companies appear to have been relied upon. For the employee data values, Liberty chose to round the numbers for the other utilities but not Nalcor. This has a modest impact on the comparison metrics. The same rounding should apply to each company if it were to be used at all. Not all of the data values presented are directly comparable, for example the Manitoba Hydro customer count includes both electric and gas customers which are not uniquely different sets of customers that can simply be added. If the focus is electricity as the comparison suggests then it would be appropriate to use the value of about 580,000 electric customers for Manitoba Hydro instead of 862,000.

4.3 Canadian Crown Corporation Peers

The model for the Liberty executive organization analysis peer group is limited to Crown corporations serving at least the majority of their province's load on a vertically-integrated basis. If this is the model then Hydro-Québec would be natural to include. It was likely excluded due to its relatively larger size. Being a Crown corporation is different but should not have an ultimate baring on the executive organization when the underlying businesses are still similar. There may be a couple of different roles for accountability with investors versus governments in investor-owned utilities (IOUs), but the only material difference at the executive level is in how they are compensated not in the organization itself. Additional peers could have been selected that have different ownership structures, such as Nova Scotia Power (NSPI). NSPI was possibly excluded due to the number of affiliates that its parent Emera has. But that highlights the complexity of comparing utilities structures in this way and the sensitivity of the analysis to Liberty's particular construct.

4.4 Comparison Metrics

The per employee comparison of Nalcor to the peer group is generally within a closer range than the per officer metrics. This is important when, as has been discussed, Liberty's use and determination of officers is flawed including in its transparency. The conclusion that Nalcor's current structure is unusually large and complex and the recommended executive eliminations seem largely based on the officer metrics. It is also key that the most favorable comparison is on sales (GWh) which aligns with Nalcor's core business being generation. Whereas, the least favorable comparison metric is customers, which is more relevant to distribution (i.e. NP) and of poorer data quality across the comparison group.

More fundamentally, there are apparent inconsistences in the calculation of the comparison metrics. The Liberty report (Table V.7 and surrounding text) suggests that the metrics are Officers or Employees per other utility data value for Nalcor versus the median and average ratios for the peer group. For example, the reported 425% for officers and expenses is presumably the ratio of Nalcor officers per expenses (Millions) to that of the median peer values in Table V.6. However, making such calculations based on the data provided does not yield the percentage results presented as the Liberty comparison metrics. Power Advisory finds substantial differences that are upwards of 98 percentage points from the Liberty metrics, which can not just be explained by rounding. The differences are not consistent across comparison metrics. Before the metrics are accepted, we encourage the Board or other stakeholders to validate them with Liberty.

5. EXECUTIVE ORGANIZATION ANALYSIS RESULTS

The number of executives is properly going to be a function of the Nalcor organizational mandate, whether or not Power Supply and Hydro are reintegrated. The broader the mandate, the more executives would be expected because their span of control needs to be focused on a specific function in order to make it manageable. Simply selecting a team based on an overall benchmarking number, and ignoring Nalcor's mandate, could create overall organization inefficiency and might be a fundamental flaw in the design of the new organization. This is one of the primary shortcomings of Liberty's analysis and does not support their conclusion and recommendation that the Nalcor executive organization can be reduced by nine positions.

In the experience of Power Advisory staff, benchmarking against other organizations is typically the last thing you do to determine if you are "in the ballpark" in terms of what you have designed. We have never seen benchmarking as being the starting point. To design an efficient organization there are four common considerations:

1. The scope of activities the organization has to perform (i.e. the mandate)
2. Maximum/minimum span of control for managerial persons (for example a typical range of two to five);
3. The degree to which decision-making is centralized or decentralized; and
4. Whether the organization be structured based on functions performed, services delivered, or geographic area covered or a combination of these (matrix-type). Service-focused organizations like electric utilities are better designed on a service delivery basis to stay close to the customer.

The design of an organization's executive matters. It's what those inside and outside the organization pay attention to. These are the leaders that external stakeholders and internal staff will need to form relationships with. It will determine how and what business decisions are made in large measure. It can also determine how much it will cost to run the business to the degree of finer or coarser control over operations.

All of these factors need to be given consideration first before you determine the appropriate number of executives. Starting with a benchmarking survey to determine the average number of executives at similar organizations does not equate to an efficient organization. For example, it should not be the case that you do a benchmark that sates on average there are 7.8 executives and then design around this number of executives. The design should be completed reflecting the unique attributes of the organization and if you wind up with 7 executives compared to the average then you may conclude that design is reasonable. On the other hand, if your design has 36 executives then you likely need to start over. This example is not baring all the issues around the Liberty use of officer and other issues with its specific benchmark analysis. Nalcor's current organizational structure should not be so drastically altered without closer consideration of such a decision's organizational and overall business effects.

6. CONCLUSION

Liberty's executive organization analysis is severely flawed from its use of officers to the actual data values and calculations. The many limitations and omissions of its analysis should be considered before any actionable conclusions are drawn by the Board and other stakeholders. Officers is not a viable comparison if trying to determine the appropriate leadership in an organization and at the very least must be clearly defined if to be used to compare organizations. Liberty lacks a description of its methodology, proper sourcing and a strong analytical basis for its comparison metrics. While outlining more sophisticated methodologies, Power Advisory was not able to replicate the Liberty "officers" data values using simplified assumptions that appear closer to what was done. It is unclear if a consistent methodology was applied to Nalcor and the selected peer group. Overall the comparison metric results using the Liberty reported data values can not be validated. The analysis also does not consider the underlying differences between utilities such as relative workload, geographic footprint, business diversity, governance and objectives or common organizational design principles in drawing conclusions on Nalcor's executive organization. Broader organizational and business effects should be considered before a substantial number of "executives" to the order of the proposed nine positions are eliminated.